

ESDI

**LINCOLN EUROPEAN
SENIOR DEBT INDEX™**

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Lincoln European Senior Debt Index

KEY OBSERVATIONS: Q3 2025 RESULTS

QUARTERLY RESULTS SUMMARY

Lincoln International is pleased to release the latest quarterly Lincoln European Senior Debt Index (ESDI). The ESDI represents years of research and analysis of data and was developed by professionals from Lincoln's Valuations & Opinions Group in collaboration with The University of Chicago Booth School of Business.

The results of the ESDI continued to show a marked improvement following the challenges experienced as a result of "Liberation Day" in the U.S., which led to wider market pricing and elevated volatility early in the second quarter of the year. As volatility subsided and market conditions stabilized, both public and private debt markets rebounded, with pricing returning to more normalized levels.

Overall, portfolio performance continues to be positive, highlighted by an increase in the rate of LTM EBITDA growth across the portfolio which rose from 6.9% to 7.9% between the second and third quarter of 2025.

The ESDI achieved a quarterly return of 2.2%, reflecting a 12 bps increase relative to the prior quarter, with the fair value increasing by 17 bps to 99.1% and the yield declining slightly by 0.2% to 9.4%. These results were driven by continued growth in earnings and tightening of observed spreads in the direct lending market.

While results for the quarter were positive overall, the macroeconomic impact of higher tariffs has caused heightened global market volatility; however, market conditions have since shown signs of stabilization and improvement. Lincoln's Valuations and Opinions Group has been monitoring recent events and their impact on the private markets in real time. We encourage readers to contact any Lincoln valuation professional for continued updates on the current state of the private markets.

99.1

Average Fair Value
of Loans in the Index
as of Q3 2025

ESDI- Key Observations- Q3 2025

- The ESDI achieved a 2.2% quarterly return for the quarter ending September 30th, 2025, which was 12 bps higher relative to the return in the second quarter of 2025 .
 - **The total quarterly return from interest was 2.2% with the impact from capital gains / losses close to zero given stable pricing compared to the Q2 2025 capital loss of -0.2%.**
 - **The weighted average swap rate was 2.8%, which was 20 bps higher than Q2 2025.**
- The 2.9% gap between the yields derived from the ESDI and Morningstar ELLI in the third quarter of 2025 has narrowed slightly since Q2 2025, reflecting the high competition to deploy capital in private credit, reducing the return differential between the two markets .
- ESDI prices increased by 17 bps to 99.1% surpassing broadly syndicated loan (BSL) prices, which declined marginally from 97.8% to 97.5%. This highlights the stability and lower volatility in the ESDI compared to BSL.



BACKGROUND:

Lincoln European Senior Debt Index

Q3

2025

The Lincoln ESDI provides insight into the direct lending market, as it is a fair value index of recurring quarterly valuations consisting of four components:

1. Total return (income return plus capital gain return);
2. Price (i.e., fair value);
3. Spread; and,
4. Yield to maturity.

In addition, we provide additional descriptive statistics including:

- (a) the impact of interest rates (base rates) and credit changes (spread) on total return and
- (b) decomposition of yields into implied spreads, base rates and floor rates.

The European non-investment grade corporate loan market has two segments: the public BSL market, which attracts investors investing in broadly syndicated loan deals, and the private direct lending market for investors investing in club deals. While correlated, there are subtle but significant differences between the two markets. Both markets primarily provide floating rate loans; however, divergences exist in terms of market liquidity, company size and credit facility size. Given the visible public liquidity in the BSL market, pricing and terms are a function of the relative credit quality or ratings as well as the relatively more competitive lender environment, whereas the more illiquid direct lending market has a stronger orientation to bilateral price negotiations, more limited competitive dynamics, less financial reporting transparency and more direct and responsive borrower-lender discussions.

In contrast to the Morningstar European Leveraged Loan Index (ELLI) which is comprised of companies borrowing in the BSL market, the constituents in Lincoln's European Senior Debt Index (ESDI) are all private credit borrowers.

The direct lending market is a significant source of capital to private equity-backed middle market companies. The Lincoln European Senior Debt Index benefits market participants by providing information to facilitate a greater understanding of the attributes of this important source of capital to the private sector.

How We Obtain the Information

On a quarterly basis, globally Lincoln values more than 6,250 private companies primarily owned by 225+ alternative investment funds. These companies are levered via borrowings from the direct lending market. We then bifurcate loans by geography, creating a U.S. Senior Debt Index and a European Senior Debt Index. As the subject companies are private, both the U.S. and European Senior Debt Index constituents are based upon Lincoln's valuations of these loans for our alternative investment fund clients and are therefore not disclosed publicly. For many of the private companies valued quarterly, Lincoln advises on the fair value of at least one senior debt security in the capital structure. All valuations conform with U.S. GAAP and IFRS and fair value principles and have been reviewed by fund management, fund boards, limited partners and auditors. The U.S. and European Senior Debt Indices are size-weighted. However, the maximum contribution to the index of any single loan valuation in any period is 2.0% (i.e., no one loan can constitute more than 2.0% of the overall index value).

Additional information can be found in our methodology discussion and on our website.

www.lincolnternational.com/perspectives/an-overview-of-the-lincoln-senior-debt-index/

RESULTS:

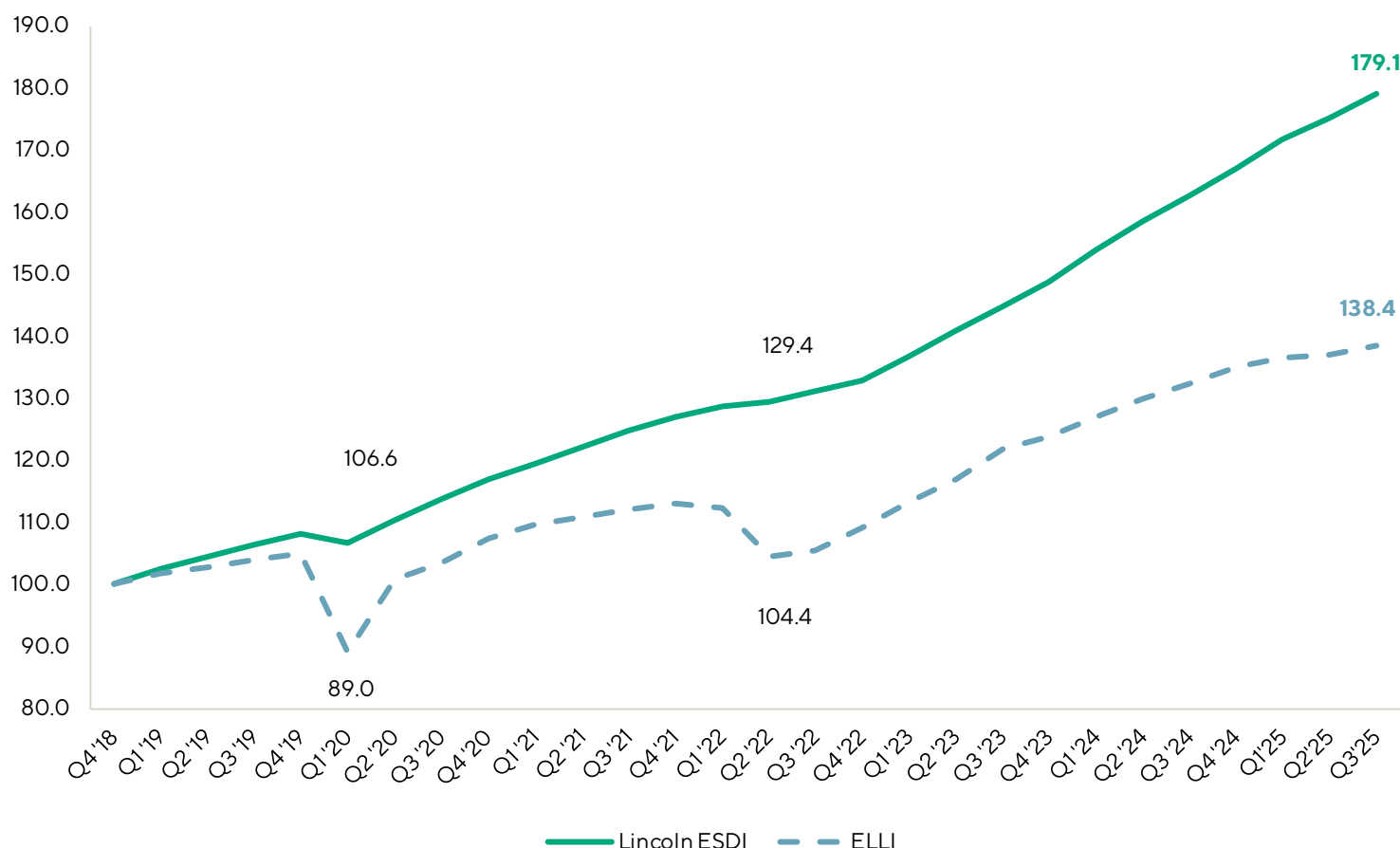
A. Total Return

Q3

2025

The starting date of the Lincoln ESDI is Q4 2018, commencing with an index value of 100.0.

Figure 1: Comparison of Total Return – Lincoln ESDI to Morningstar ELLI



Observations:

- Investment return in the ESDI is generated from two sources: (1) capital gains and losses and (2) income return. For the historical period of our index, income returns dominate capital gains or losses, resulting in a positive quarterly total return.
- Since the inception of the European Senior Debt Index, both the Morningstar ELLI, which measures the performance of the public BSL market in Europe, and the European direct lending market have experienced an increase in total return. However, since inception of the ESDI, it showed a higher CAGR of 9.0% as compared to 4.9% for the ELLI.
- This difference in quarterly yield makes intuitive sense, given the illiquidity of private credit assets compared to the BSL.

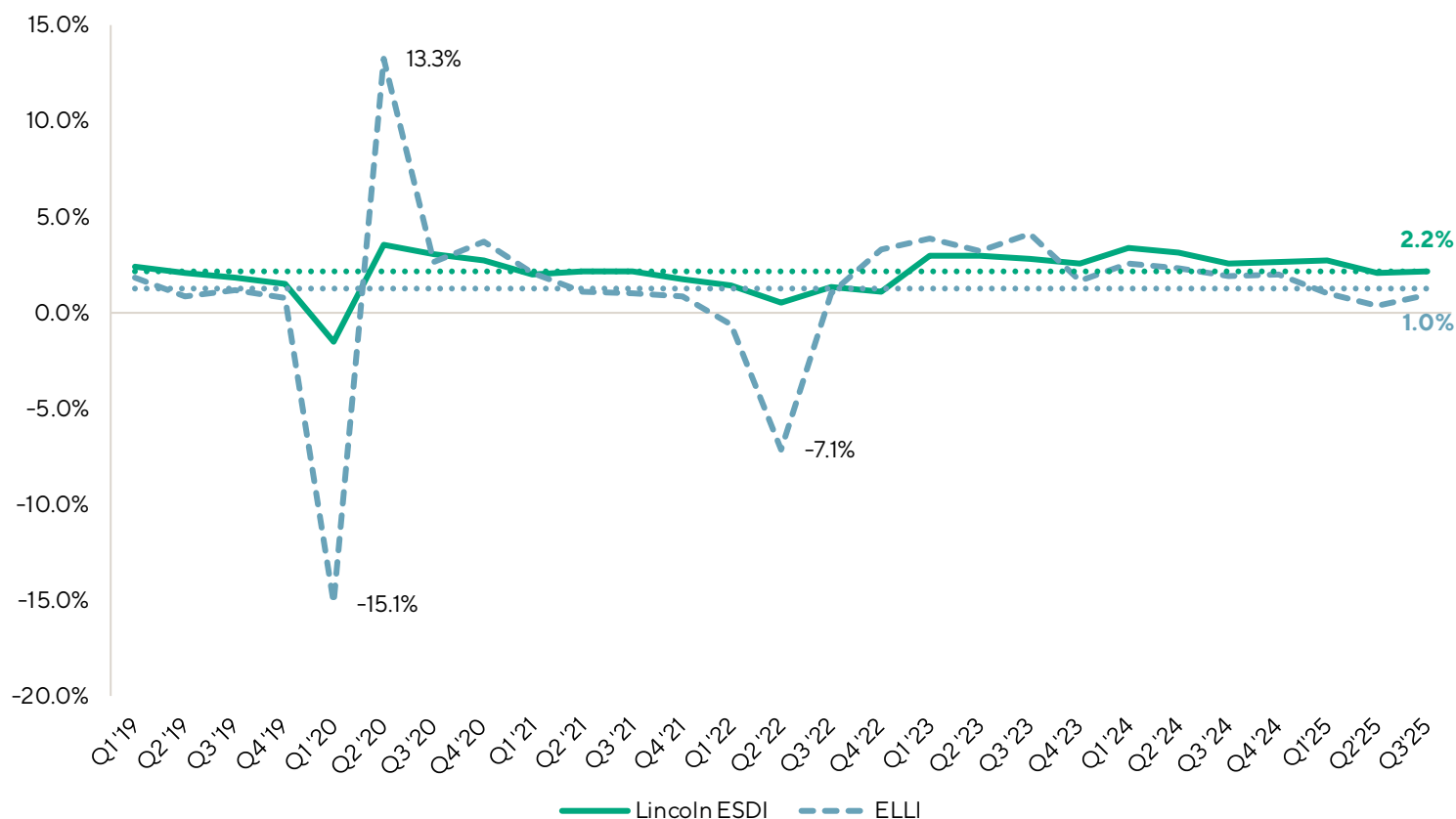
RESULTS:

A. Total Return (cont.)

Q3

2025

Figure 2: Correlation and Comparison of Quarterly Returns – Lincoln ESDI to BSL Market (ELLI)



Observations:

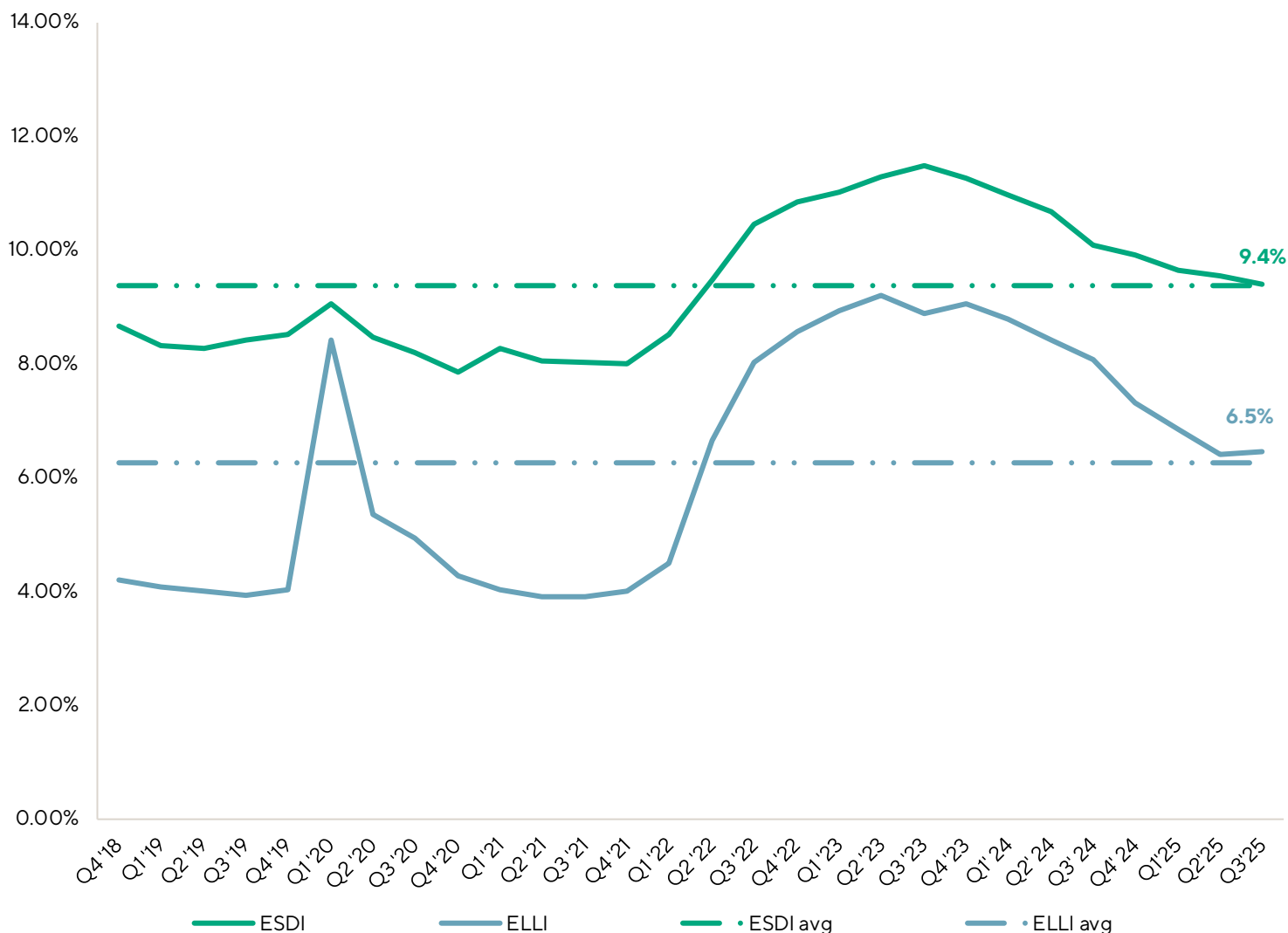
- The correlation between the ESDI and Morningstar ELLI is high at $r = 0.85$. However, there are two distinct differences:
 - The standard deviation of quarterly returns for the life of the ESDI was 1.0% versus the 4.4% for the Morningstar ELLI over the same time period, implying lower volatility.
 - The ESDI generates higher returns. Current quarterly BSL returns for the quarter ending September 30, 2025, were 1.0% versus the ESDI of 2.2%. Since the inception of ESDI, average quarterly ESDI returns have been higher (2.2%) than those for the ELLI (1.3%).
- The direct lending market experiences negative returns much less frequently than the BSL market.
- Since the inception of the European Senior Debt Index on December 31, 2018, through September 30, 2025, the ESDI reported a negative quarterly return only in Q1 2020, whereas the BSL market has experienced 3 quarters of negative returns (Q1 2020, Q1 2022 and Q2 2022).

RESULTS: B. Yields

Q3

2025

Figure 3: Comparison of Yields – Lincoln ESDI to BSL Market (ELLI)



Observations:

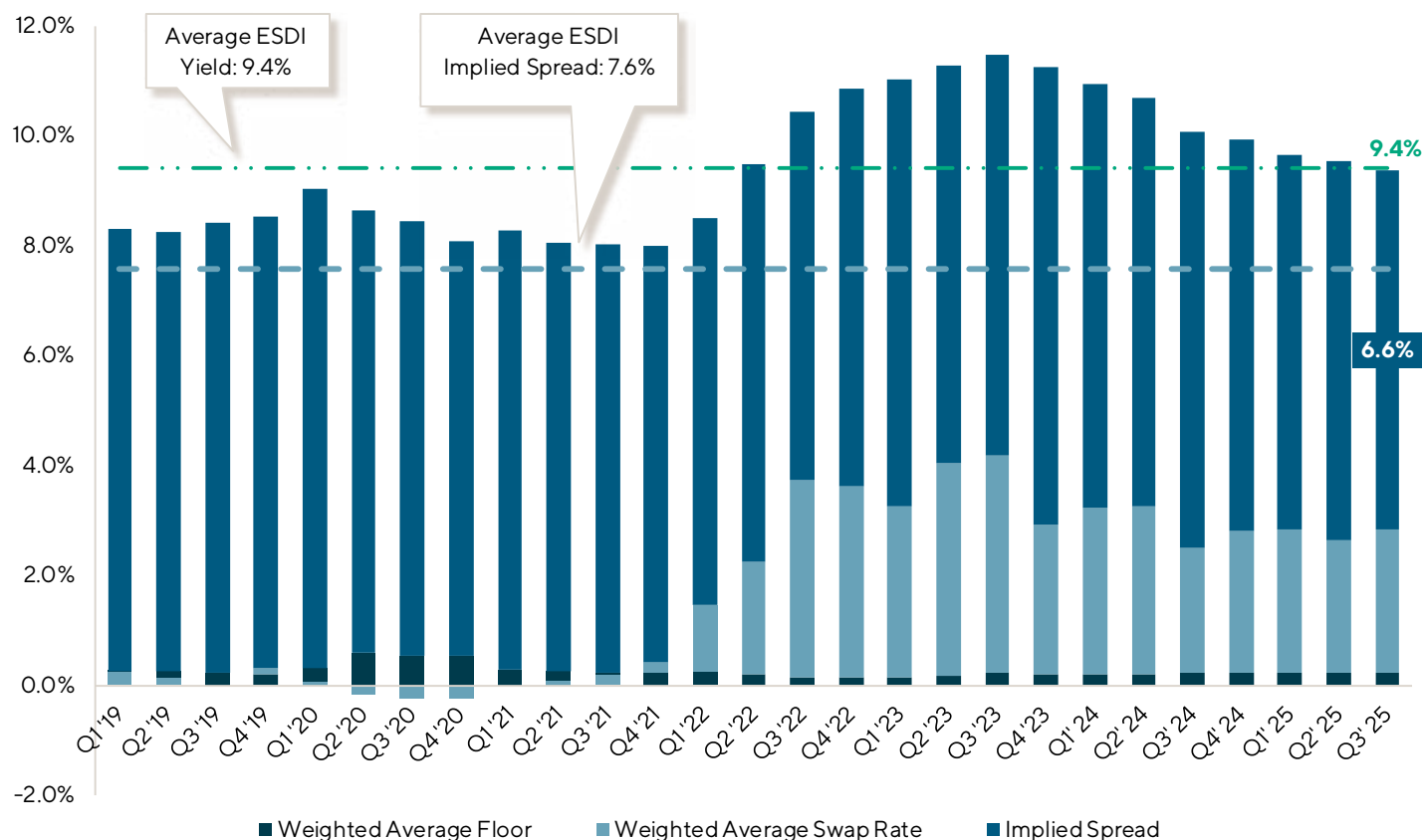
- For the quarter ending September 30, 2025, the yield of the Lincoln European Senior Debt Index (ESDI) was 9.4%, equal to its historical average, while the yield of the European Leveraged Loan Index (ELLI) was 6.5%, above its historical average of 6.3%, both driven by elevated base rates and increased competition to deploy capital in private credit.

RESULTS: B. Yields (cont.)

Q3

2025

Figure 4: Decomposing Yields in the European Direct Lending Market: Weighted Average Base Rates / Floors and Spreads



Note: 1. Weighted average floor and weighted average swap rates are calculated based on index weightages of different securities.

Observations:

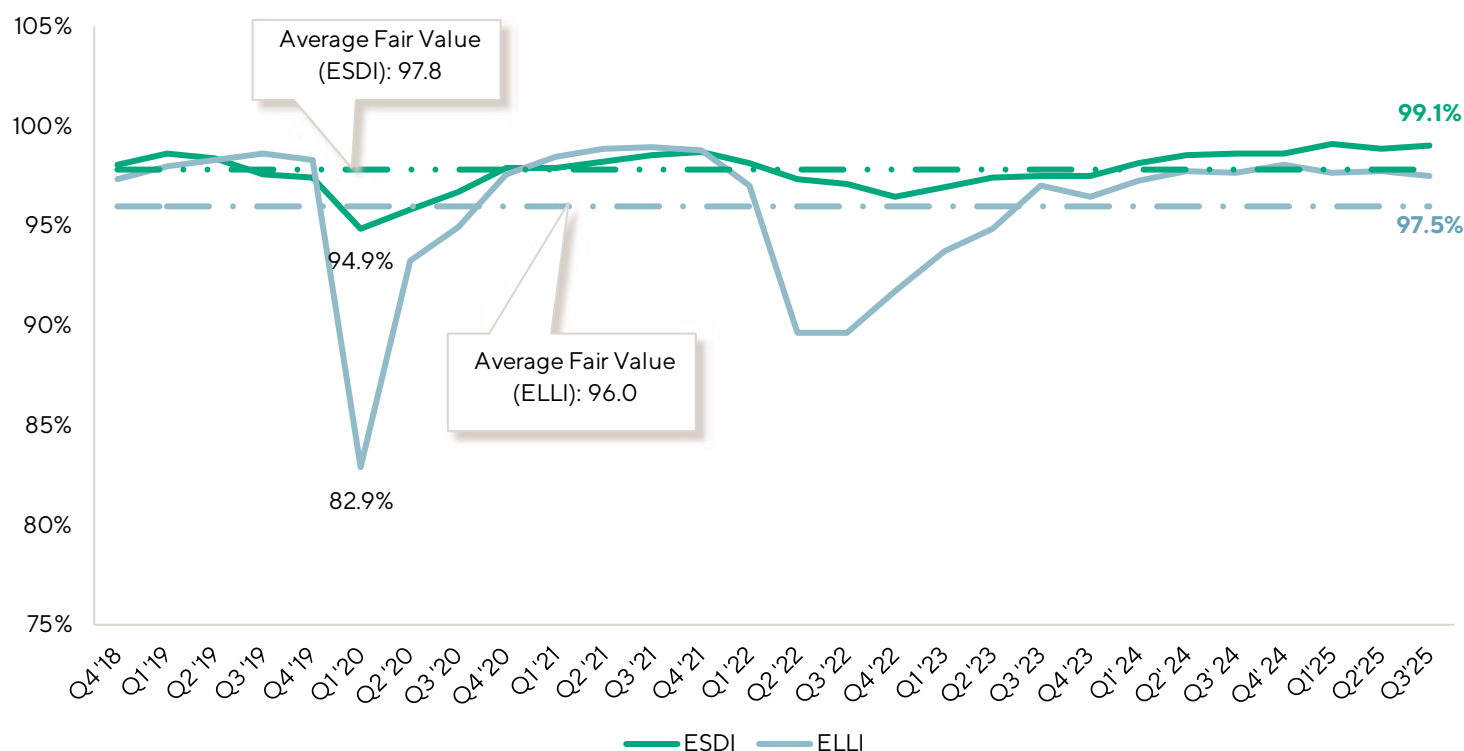
- The average yield of the Lincoln European Senior Debt Index since inception was approximately 9.4%. From 2019 until the quarter ending June 30, 2022, yields in the direct lending market remained in a band between 8.0% and 10.0%. However, as reference rates began to increase in 2022, yields increased as well and exceeded 10.0% between Q3 2022 and Q3 2024.
- Yields over the past 12 months slowly declined given easing of interest rate policies and have fallen slightly below the historical average in Q3.
- The implied spreads decreased since the peak in 2020 given the increased competition seen within the direct lending market.

RESULTS: C. Fair Value – Price – Trends

Q3

2025

Figure 5: Fair Value – Lincoln ESDI Compared to the Morningstar ELL Index



Note: Price based on fair value of the Lincoln ESDI and average bid of the Morningstar ELLI

Observations:

- The European Senior Debt Index increased to 99.1% as of September 30, 2025, an increase of 17 bps over Q2 2025. The majority of this increase was due to earnings growth and observed tightened spreads in the direct lending market.
- The fair value of 99.1% continued to surpass the historical average fair value of 97.8%.
- The standard deviation of fair values for the ESDI was at 1.0% as compared to 3.6% for the ELLI, which showed a lower price volatility of the direct lending market as compared to the broadly syndicated loan market (BSL).
- There are several reasons for the phenomenon whereby loans in the direct lending market do not experience the same price volatility as observed in the BSL market:
 - Loans in the direct lending market trade much less frequently than loans in the BSL market.
 - Investors in the BSL market are subject to capital flows and therefore potential liquidity constraints, leading to much higher volatility in public marks and implied yields.

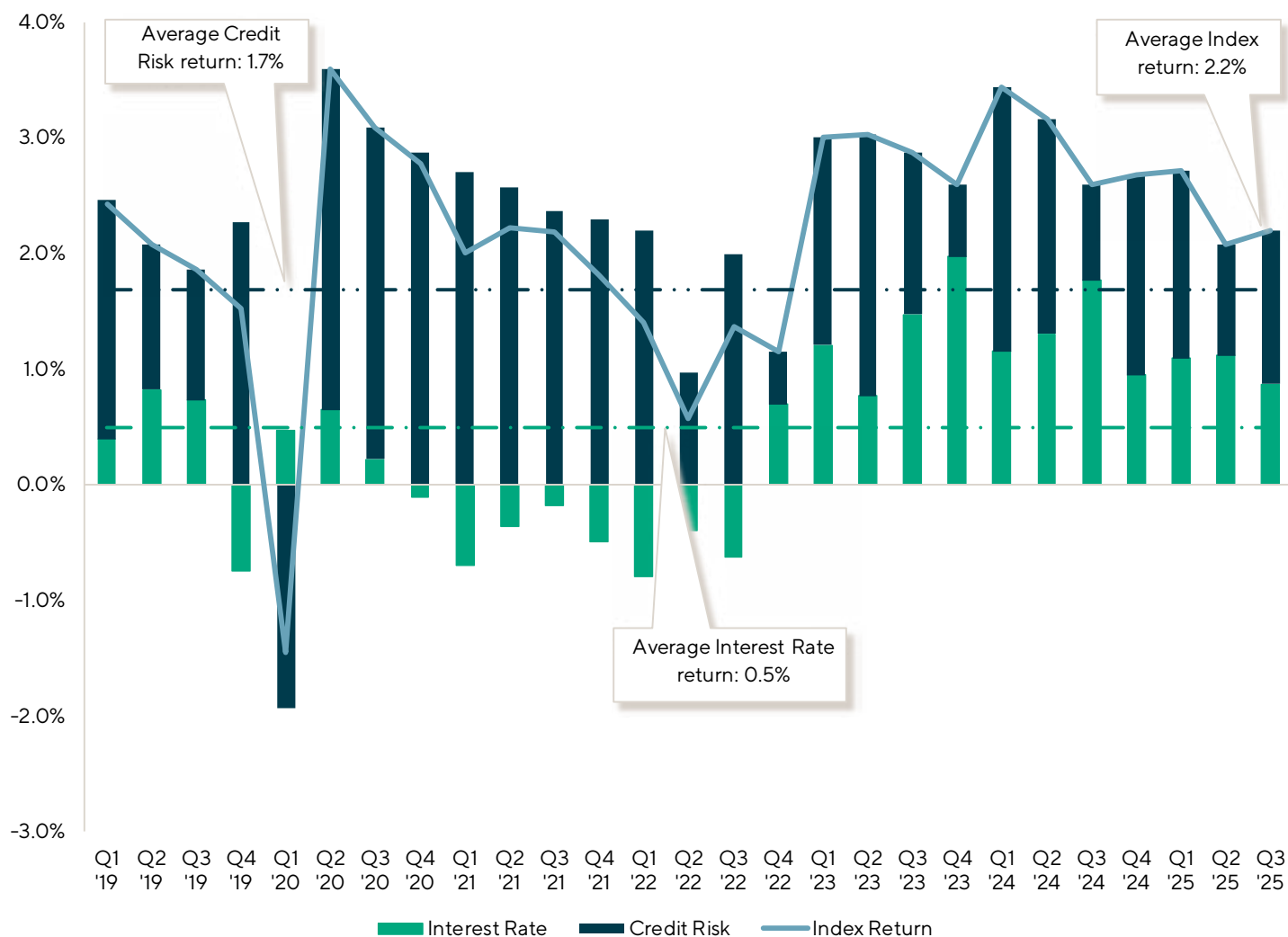
RESULTS:

D. Bifurcation of the Impact on Total Return Due to Credit Risk and Interest Rate Risk

Q3

2025

Figure 6: Decomposition of Quarterly Index Returns: Interest Rate versus Credit Risk



Observations:

- The ESDI returned 2.2% for the third quarter of 2025, which was 12 bps higher than the second quarter of 2025.
- Decomposing the quarterly return of 2.2%, the return was attributable to changes in credit risk and interest rate risk, with credit risk accounting for 1.3% of the return and interest rate risk making up the remaining 0.9% of the return.

SUMMARY:

Q3 2025 European Senior Debt Index

Q3

2025

- From 2018 through September 30, 2025, the portfolio of direct lending loans in the ESDI yielded higher returns and lower volatility relative to broadly syndicated loans.
- The Lincoln European Senior Debt Index provides market participants many unique valuation insights into the fair value of direct lending loans and represents a significant enhancement to the information available within an opaque market.



Comparing Lincoln's European and U.S. Senior Debt Indices

Q3

2025

Lincoln International releases two private credit reports each quarter: the U.S. Senior Debt Index (LSDI) and the ESDI, encompassing our comprehensive data research and analysis. The indices provide overviews of the U.S. and European markets and reveal a high correlation of private credit lending returns and yields between both geographies since 2019.

How We Collect and Analyze the Information

On a quarterly basis, globally Lincoln values more than 6,250 private companies primarily owned by more than 225 alternative investment funds. These companies are levered via borrowings from the direct lending market. We then bifurcate loans by geography, creating a U.S. Senior Debt Index and a European Senior Debt Index. As the subject companies are private, both the U.S. and European Senior Debt Index constituents are based upon Lincoln's valuations of these loans for our alternative investment fund clients and therefore not disclosed publicly. For many of the private companies valued quarterly, Lincoln advises on the fair value of at least one senior debt security in the capital structure. All valuations conform with U.S. GAAP and IFRS and fair value principles and have been reviewed by fund management, fund boards, limited partners and auditors. The U.S. and European Senior Debt Indices are size-weighted. However, the maximum contribution to the index of any single loan valuation in any period is 2.0% (i.e., no one loan can constitute more than 2.0% of the overall index value).

Additional information about the methodology discussion can be found at:

[www.lincolninternational.com/perspectives/
an-overview-of-the-lincoln-senior-debt-index/](http://www.lincolninternational.com/perspectives/an-overview-of-the-lincoln-senior-debt-index/)



RESULTS: Quarterly Returns

Q3

2025

Figure 1: Comparison of Quarterly Returns – Lincoln ESDI to LSDI (U.S.)



Index	Quarterly Return	LTM Returns	CAGR (since Q1 2019)	Standard Deviation of Annual Returns (since Q1 2019)
ESDI	2.2%	10.0%	9.0%	2.7%
LSDI	2.5%	10.3%	8.6%	3.5%

Key Observations:

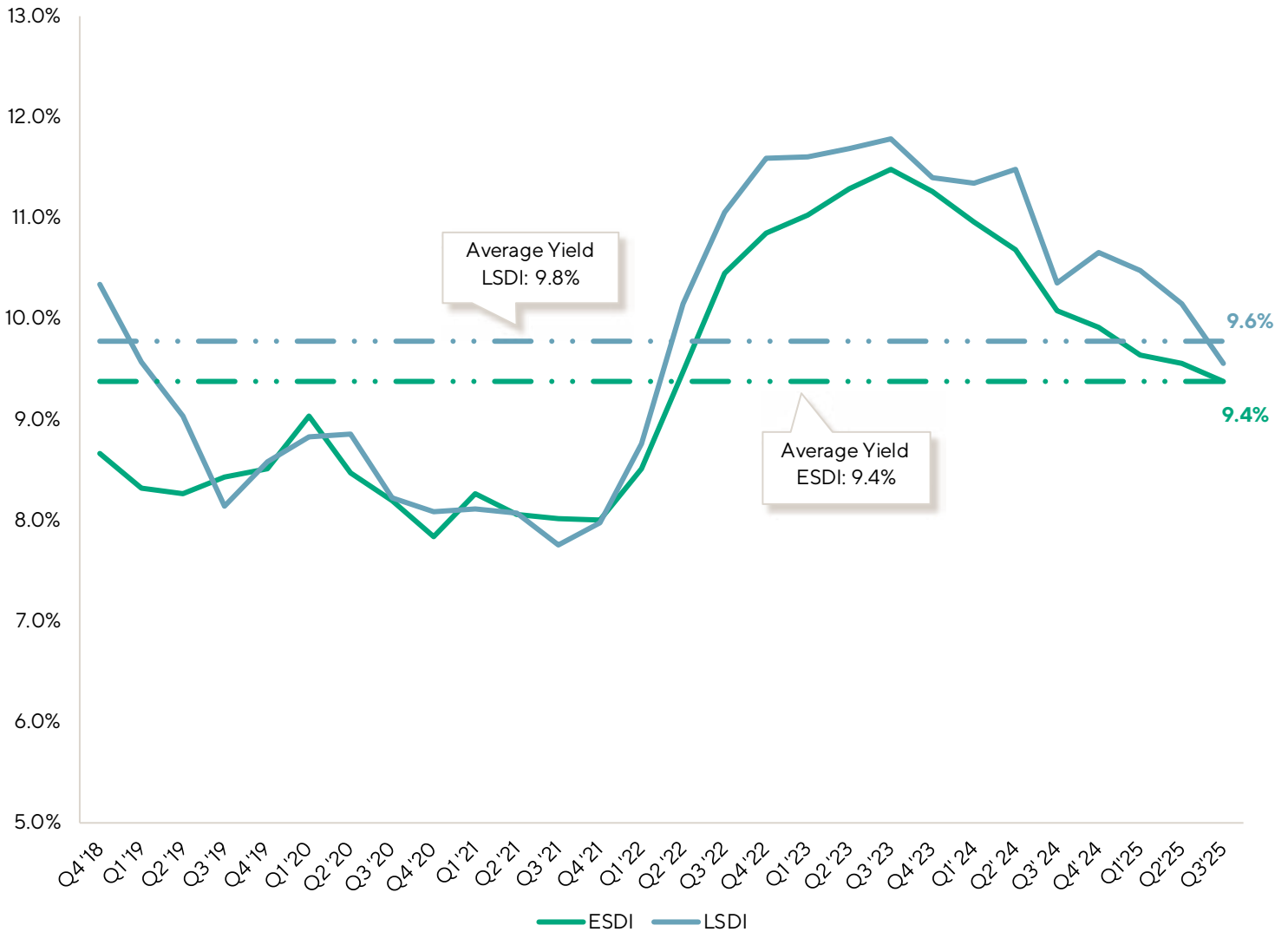
- Quarterly private credit returns on average have been slightly more attractive in Europe than the U.S. with lower volatility. More recently, returns have been higher in the U.S. given higher base rates.

RESULTS: Index Yields

Q3

2025

Figure 2: Comparison of Yields – Lincoln ESDI to LSDI (U.S.)



Key Observations:

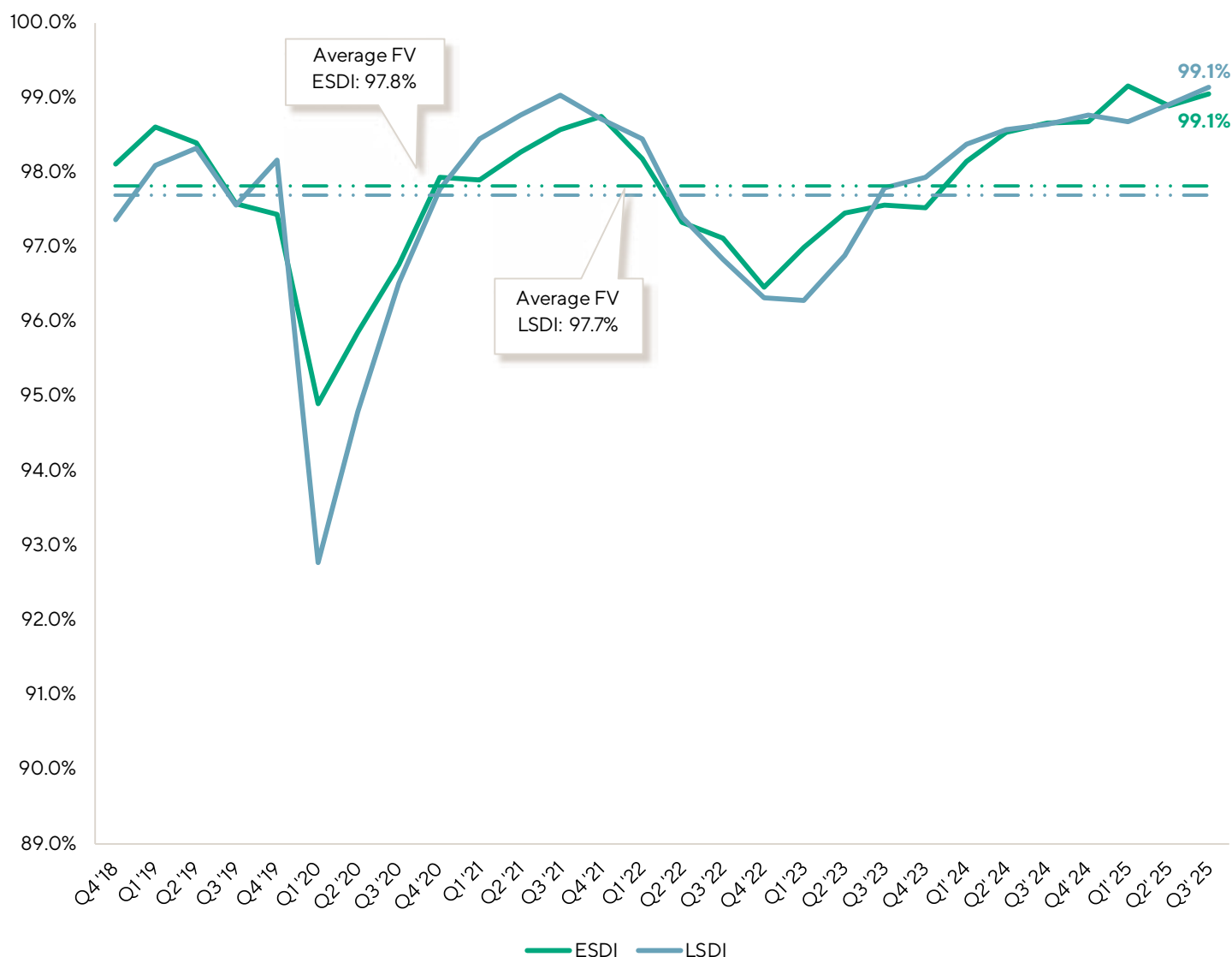
- Yields have declined from the highs of 2023 as base rates have started to ease but remain attractive at close to 10%. Yields have been historically higher in the U.S. due to higher base rates.
- European average annual yields are lower than the U.S. by 0.4%.

RESULTS: Fair Values

Q3

2025

Figure 3: Comparison of Fair Values – Lincoln ESDI to LSDI (U.S.)



Key Observations:

- Both indices show high correlation ($r = 0.94$), although COVID and higher inflation and interest rates have had a greater impact on U.S. fair values.

Academic Advisor

Professor Pietro Veronesi is the Chicago Board of Trade Professor of Finance at the University of Chicago Booth School of Business. He is also a research associate of the National Bureau of Economic Research and a research fellow of the Center for Economic and Policy Research.

Professor Veronesi's research has appeared in numerous publications, including the Journal of Political Economy, American Economic Review, Quarterly Journal of Economics, Journal of Finance, Journal of Financial Economics and Review of Financial Studies. He is the recipient of several awards, including the 2015 AQR Insight award; the 2012 and 2003 Smith Breeden prizes from the Journal of Finance; the 2008 WFA award; the 2006 Barclays Global Investors Prize from the EFA; the 2006 Fama / DFA prizes from the Journal of Financial Economics; and the 1999 Barclays Global Investors / Michael Brennan First Prize from the Review of Financial Studies. Professor Veronesi teaches both masters- and PhD-level courses. He is the recipient of the 2009 McKinsey Award for Excellence in Teaching.

His undergraduate work was in economics at Bocconi University where he received a laurea magna cum laude with honor in 1992. He earned a master's degree with distinction in 1993 from the London School of Economics. He joined the Chicago Booth faculty upon obtaining his PhD in Economics from Harvard University in 1997.

Lincoln's Valuations & Opinions Group

Lincoln's Valuations & Opinions Group is a leading independent valuation advisor to managers of illiquid assets and lenders to alternative assets funds. The group specializes in the valuation of illiquid debt, equity and derivative securities. Additionally, they provide independent fairness, solvency and other transaction opinions for a variety of corporate transactions for both public and private companies.

The firm's Valuations & Opinions Group is widely recognized for leveraging Lincoln's "real world" transaction experience from its mergers and acquisitions and debt advisory practices to assist its clients in the determination of fair value. Lincoln's highly skilled professionals have extensive experience in determining and supporting fair value measurements for traditional and complex securities.

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6,250+

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per Quarter

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~30%

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2,500+

Asset Backed
Finance Security
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Transaction Opinions
over the Last 3 Years

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